

CLAIMS

1. A sensor comprising:

a waveguide for allowing an electromagnetic wave to propagate therethrough and disposing an
5 object at a plurality of positions thereof; and
a detecting portion for detecting the electromagnetic wave which has interacted with the object at the plurality of positions and propagated through the waveguide,

10 wherein a property of the object is analyzed or identified based on an information obtained from the electromagnetic wave detected by the detecting portion.

2. The sensor according to claim 1, further
15 comprising a disposing means for disposing the object at the plurality of positions.

3. The sensor according to claim 2, wherein the disposing means comprises one of a drop means for dropping the object at the plurality of positions, a
20 hole pattern, a groove pattern, a protrusion shape pattern, and a pattern including a hydrophilic portion and a hydrophobic portion.

4. The sensor according to claim 2, wherein the disposing means periodically dispose the object.

25 5. A sensor having the sensor set forth in claim 1 provided in plurality on a substrate.

6. A sensing apparatus comprising:

the sensor set forth in claim 1; and
a storage portion for storing an information
associated with the property of the object,

wherein the information obtained from the
5 electromagnetic wave detected by the detecting
portion is compared with the information stored in
the storage portion to analyze or identify the
property of the object.

7. A sensing apparatus comprising:
10 the sensor set forth in claim 1; and
means for coupling the electromagnetic wave
into the waveguide for allowing the electromagnetic
wave to propagate therethrough.

8. A method of analyzing or identifying a
15 property of an object using an electromagnetic wave,
comprising the steps of:

disposing an object at a plurality of positions
of a waveguide for allowing an electromagnetic wave
to propagate therethrough; and
20 detecting the electromagnetic wave which
interacted with the object at the plurality of
positions and propagated through the waveguide and
analyzing or identifying a property of the object
based on an information obtained from the detected
25 electromagnetic wave.

9. The method according to claim 8, wherein the
step of disposing the object at the plurality of

positions comprises periodically disposing the object
at the plurality of positions.